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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Takayuki Suga

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EXAMINER

SARPONG, AKWASI

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

12/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/674,498	Applicant(s) SUGA ET AL.	
	Examiner AKWASI M. SARPONG	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 and 22 is/are allowed.
- 6) ☒ Claim(s) 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/04/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mou (6216952) in view of Aikawa (5844730).

Claim 14, Mou discloses an image reading apparatus (**Fig. 2 el. 2 shows a scanner**) for reading an image of a document, (**Col. 2 Lines 48-52- thus the casing is located in the scanner 2 which scans images put on glass window 21**) comprising:

an image reading unit (**Fig. 2 El. 22 or Carriage 22**) configured to read the image of the document (**Col. 2 lines 53-60- thus the casing which contains the light source reads the image by passing light through the image**)

an illuminating unit (**Light source 222 shown in Fig. 2**) configured to illuminate the document. (**Column 2 Lines 49-56 – thus the light source produces light which passes through the image**).

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a mirror (**Fig. 2 El. 223**) configured to reflect and guide light from the document to said image reading unit, (**Col. 2 Lines 54-65-thus these mirrors are made to reflect the lights from the document**)

said mirror including a reflecting mirror surface (**Col. 2 lines 53-62- thus Mirror 223 reflects the first light ray that comes from the paper**) and

a housing (**Casing 221 shown in fig. 2**) configured to support said mirror, said housing including a portion, (**Col. 3 Lines 8-15, Fig. 2 El. 221-thus the casing is put in place to support the mirrors and therefore the casing (housing) has a supporting part that hold both the mirror and the casing or housing together**)

wherein said mirror comprises a projection (**Col. 2 lines 60-62- thus the mirrors has a projection because it is able to reflect the light from the light source**) separate from the reflecting mirror surface, positioned adjacent one of the lateral edges of the reflecting mirror surface and (**Fig. 2 El. 225 shows a projecting portion of the mirror which is used to project light ray "A" to be light ray "B"**) disposed at a position corresponding to a reference axis of the reflecting mirror surface, (**Col. 2 Lines 53-62- Fig. 2, El. 225 and 224- thus the angle between mirrors 225 and 224 forms a reference axis as it can be seen clearly from fig. 2**)

wherein the projection of said mirror is inserted in the portion of the housing. (**Col. 3 lines 20-31- thus the mirror is inserted in the recess 2291 and a hook 2292 and this will engage the mirrors in place during scanning**)

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Mou does not disclose a curved reflecting surface.

Aikawa disclose a curved reflecting surface (Col. 6 Lines 1-9 and lines 31-41 Fig. 8C - thus the mirrors are hold in position by base plate 75 as taught by Aikawa in Col. 6 Lines 25-34). Since Aikawa teaches a plurality of curved mirrors used as reflective surface for optical purpose and therefore it will be obvious to one ordinary skilled in the art at the time the invention was made to modify Mou scanning structure to include a curved reflective surface so that the light obtained will be uniform as disclosed by Aikawa in Col. 3 Lines 30-32 and also the modification of Mou's scanning device to include Aikawa's 73 a-e mirrors will improve the readings of the scanning and thus the scanner will output a better image.

Claim 15, Mou in view of Aikawa discloses wherein the projection of said mirror is disposed at a center of said mirror in a longitudinal direction thereof.

(Mou: fig. 2 shows that when light ray A hits mirror 223 from document on the platen, the center of mirror 223 reflects the light ray to mirror 224 and therefore it is at the center of mirror 223)

Claim 16, Mou in view of Aikawa discloses wherein said mirror is fixed on said housing by a pressure force of a blade spring. **(Mou: Col. 3 lines16-33- thus the hook and recess can be used as a spring) and (Aikawa: Col. 6 lines 34-55- thus the adhered (spring) is used to put both the mirror and the housing together)**

Claim 17, Mou in view of Aikawa discloses wherein said mirror is bonded to said housing. **(Mou: Col. 3 lines 16-33- thus the hook and recess can be used as a spring) (Aikawa: Col. 6 lines 34-41- thus the screw or adhered is used to put both the mirror and the housing together).**

Claim 18, Mou in view of Aikawa discloses wherein said mirrors is screwed to said housing. **(Aikawa: Col. 6 lines 34-41- thus the screw or adhered is used to put both the mirror and the housing together)**

Claim 19, Mou in view of Aikawa discloses wherein the scanner further comprising a scanning unit configured to move said housing to perform scanning of the image of the document, **(Mou: Col. 2 Lines 48-56- thus the casing moves beneath the platen during scanning)**

and wherein said housing further supports said image reading unit and said illumination unit. **(Mou: Col. 3 Lines 8-15, Fig. 2 El. 221- thus the casing is put in place to support the mirrors and therefore the casing (housing) has a supporting part that hold both the mirror and the casing or housing together)**

Claim 20, Mou in view of Aikawa discloses wherein said housing includes a mirror supporting part, **(Mou: Col. 3 Lines 15 and 32 -thus mirror 223 is supported by the hooks and the recesses and therefore hold the mirrors in place during scanning)** wherein said mirror further comprises contact portions on both sides of the curved reflecting mirror surface, **(Mou: Col. 3 lines 27-32-**

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thus the hooks and the recesses hold mirror 223 in place by holding the mirror in both sides)

said contact portions being disposed on a side of the mirror on which the curved reflecting mirror surface is disposed, and wherein the contact portions of said mirror contact the mirror supporting part of the housing. **(Mou: fig. 2 shows clearly that as carriage 22 moves to scan the document mirror 223 receives light from the image document which is in normal direction to the paper 23)**

NB: Col. 2 lines 48-67- thus the light reflected from the document is normal to the first mirror which is mirror 223 and according to fig. 5 mirror 223 is engaged in hooks 2292 and recesses 2291.

Claim 21, Mou in view of Aikawa discloses wherein the curved reflecting surface and the contact portions of said mirror are formed integrally. (Mou: Fig. 2 shows clearly that the mirrors (223-226228 and 224 are made together with the casing 22).

Allowable Subject Matter

1. As allowable subject matter has been indicated in Claims 1-13 and 22, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Response to Arguments:

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Applicant's arguments filed 09/15/2009 have been fully considered but they are not persuasive.

Regarding Claim 14 applicant argues that the cited references fails to teach

or suggest wherein said mirror comprises a projection, separate from the reflecting mirror surface, positioned adjacent one of the lateral edges of the reflecting mirror surface and being disposed at a position corresponding to a reference axis of the curved reflecting mirror surface, and

In reply, Examiner respectfully disagree because Mou wherein said mirror comprises a projection **(Col. 2 lines 60-62- thus the mirrors has a projection because it is able to reflect the light from the light source)** separate from the reflecting mirror surface, positioned adjacent one of the lateral edges of the reflecting mirror surface and **(Fig. 2 El. 225 shows a projecting portion of the mirror which is used to project light ray "A" to be light ray "B")** disposed at a position corresponding to a reference axis of the reflecting mirror surface, **(Col. 2 Lines 53-62- Fig. 2, El. 225 and 224- thus the angle between mirrors 225 and 224 forms a reference axis as it can be seen clearly from fig. 2)**

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AKWASI M. SARPONG whose telephone number is (571)270-3438. The examiner can normally be reached on Monday-Friday 8:00am-5:00pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

AMS
07/02/2009

